



# Is Fibo

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You are given an integer,  $N$ . Write a program to determine if  $N$  is an element of the *Fibonacci Sequence*.

The first few elements of fibonacci sequence are 0,1,1,2,3,5,8,13.... A fibonacci sequence is one where every element is a sum of the previous two elements in the sequence. The first two elements are 0 and 1.

Formally:

$$fib_0 = 0$$

$$fib_1 = 1$$

$$fib_n = fib_{n-1} + fib_{n-2} \forall n > 1$$

## Input Format

The first line contains  $T$ , number of test cases.

$T$  lines follows. Each line contains an integer  $N$ .

## Output Format

Display **IsFibo** if  $N$  is a fibonacci number and **IsNotFibo** if it is not a fibonacci number. The output for each test case should be displayed on a new line.

## Constraints

$$1 \leq T \leq 10^5$$

$$1 \leq N \leq 10^{10}$$

## Sample Input

```
3
5
7
8
```

## Sample Output

```
IsFibo
IsNotFibo
IsFibo
```

## Explanation

5 is a Fibonacci number given by  $fib_5 = 3 + 2$

7 is not a Fibonacci number

8 is a Fibonacci number given by  $fib_6 = 5 + 3$

**TimeLimit** Time limit for this challenge is given [here](#)

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Dec 05 2013

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PHP



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